



Align seg 1/1 to: AAD01231 from: 1 to: 1702

```

1 MetLysLeuThrValIysThrLeuLysGlyThrHisPheGluIleArgVa 17
  |||||||
106 ATGAAGCTACGCTGAGAACCCCTCAAGGAGACCACTTCGAGATCCGGGT 155
  |||||||
17 LcInProAsnAspThrIleMetAlaValLysLysAsnIleGluGluIleG 34
  |||||||
156 GCAGCCCAACGACACGATTATGCTGTGAAAGAAATATATAGAGACATAC 205
  |||||||
34 LcGlyLysAspSerTyrProTyrGlyGlnGlnLeuLeuIlePheAsnGly 50
  |||||||
206 AAGGGAACACAGACTATCCATGGGCGCAACACTGCTGATTTTCAATGGA 255
  |||||||
51 LysValLeuLysAspGluSerThrLeuGluGluAsnLysValAsnGluAs 67
  |||||||
256 AAGGTCTTGAAGATGAAGTACATGTAAGAGAAATAAAGTCAATAGGA 305
  |||||||
67 PclYpHeLeuValIleMetLeuSerLysGlyThrSerGlySerThrG 84
  |||||||
306 TGGGTTTCTAGTGTCTATGCTTAGTAAAGGTAAACATCTGGTTCAACTG 355
  |||||||
84 LThrSerSerSerGlnHisSerAsnThrProAlaThrArgGlnAlaPro 100
  |||||||
356 GAACTTCATCTTCCACGACTCAACACTCTCTGCACAAAGCGACGACCT 405
  |||||||
406 CCTGTAGAGGCCCAACACAGCTCCTCAACCCCGGTGGCACCAATTAC 455
  |||||||
117 rThrSerGlnProGluGlyLeuProAlaGlnAlaProAsnThrHisAspA 134
  |||||||
456 AACCTTCTCAGCCTGAAGGACCTTCCTGCACAGGCACTTAACACACAGAA 505
  |||||||
134 snAlaIleAsnLeuLeuSerGlyArgAsnValAspThrIleIleAsn 150
  |||||||
506 ATGCGGCATCAAAATCTTCTCTCGAAGCAATGTTGACACAAATTAATAC 555
  |||||||
151 GlnLeuMetGluMetGlyGlySerTyrAspLysAspLysValGlnAr 167
  |||||||
556 CAGCTAATGAGATGGGTGGGCGACTGGGACAAAGATAAAGTCCAAAG 605
  |||||||
167 gAlaLeuArgAlaIleTyrAsnAsnProGluArgAlaValGluTyrLeu 184
  |||||||
606 GGCCTCCGCTGCGCTTACACAAACCCGACAGCTGCTGTGAATACCTCT 655
  |||||||
184 YrSerGlyIleProValThrAlaGluIleAlaValProIleGlyGlyGln 200
  |||||||
656 ACTCTGCTATTCAGTAACAGCTGAATGCTCTTCCATTTGGTGTCA 705
  |||||||
201 GAlaIleAsnThrThrAspArgAlaProThrGlyLysGlyLeuSerG 217
  |||||||
706 GGGGCAAAACAACTGATGAGCTCTACTGGGGAAGCTGCTCTCTGG 755
  |||||||
217 YlleProAsnThrAlaProLeuAspLeuPheProGlnGlyAlaSerAsnA 234
  |||||||
756 GATTCAAACACCGCTCCACTGATCTTTCCGCGAGGGGCTTCCAAAG 805
  |||||||
234 LcGlyGlyLysAlaGlyGlyGlyProLeuAspPheLeuArgAsnAsnPro 250
  |||||||
806 CTGGAGAGTGGTGTGTGTGCGACCACTTGATTTTCTTAGAAACATTC 855
  |||||||
251 GlnPheGlnAlaValArgGluMetValHisThrAsnProGlnIleLeuG 267
  |||||||
856 CAGTTTCAAGCAGTTAGGAAATGCTCATACAAATCCACAATTTTGCA 905
  |||||||
267 nPrometLeuValGluLeuSerLysGlnAsnProGlnIleLeuArgLeu 284
  |||||||
906 GCCTATGCTGCTTGAAGTGAAGCAAGCAAGATCCTCAAAATTTCAAGGTGA 955
  |||||||
284 LcGlyGluGlnHisAspGluPheLeuGlnLeuLeuAsnGluProPheGlu 300
  |||||||
956 TTGAGAGAGATCATGTGAGTTTCTTCACTTACTAAATGAGCCCTTTGAA 1005

```

```

301 GlyGlyGluGlyAspPheLeuAspGlnProGluGluAspGluMetProH 317
  |||||||
1006 GCGGAGAGGGGATTTCTTAGACCAACCTGAGAGAGATGAATGGCTCA 1055
  |||||||
317 sAlaIleSerValThrProGluGluGlnGluAlaIleGlyArgLeuGln 334
  |||||||
1056 TGGCATTAGTGTACACAGAGAGCAGCAGGCGCATTTGGACGGCTTGAGT 1105
  |||||||
334 erMetGlyPheAspArgAlaArgValIleGluAlaPheLeuAlaCysAsp 350
  |||||||
1106 CCATGGGGTTTCGACAGACGCGCTTATTTAGACATTTTACGCTCGCAT 1155
  |||||||
351 ArgAsnGluGluLeuAlaIleAsnTyrLeuLeuGluHisAlaGlyGlu 367
  |||||||
1156 AGGAGAGAGAGCTAGCAGCAAACTATCTCTTGAGCATGCTGTGAGGA 1205
  |||||||
367 uAsp 368
  |||||
1206 AGAT 1209

seq_name: /SIDSL/gcdata/geneseq/geneseqn-emb1/NA2000.DAT: AAC37705
seq_documentation_block:
ID AAC37705 standard; DNA; 1551 BP.
XX
AC AAC37705;
XX
DT 17-OCT-2000 (first entry)
XX
DE Arabidopsis thaliana DNA fragment SEQ ID NO: 18371.
XX
KW Hybridisation assay; genetic mapping; gene expression control;
  protein identification; signal transduction pathway;
  metabolic pathway; promoter; termination sequence; ss.
XX
OS Arabidopsis thaliana.
XX
PN EP103405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-0301439.
XX
PR 25-FEB-1999; 99US-0121825.
PR 05-MAR-1999; 99US-0123180.
PR 09-MAR-1999; 99US-0123548.
PR 23-MAR-1999; 99US-0125788.
PR 25-MAR-1999; 99US-0126264.
PR 29-MAR-1999; 99US-0126785.
PR 01-APR-1999; 99US-0127462.
PR 06-APR-1999; 99US-0128234.
PR 08-APR-1999; 99US-0128714.
PR 16-APR-1999; 99US-0129845.
PR 19-APR-1999; 99US-0130077.
PR 21-APR-1999; 99US-0130449.
PR 23-APR-1999; 99US-0130510.
PR 23-APR-1999; 99US-0130891.
PR 28-APR-1999; 99US-0131449.
PR 30-APR-1999; 99US-0132048.
PR 30-APR-1999; 99US-0132407.
PR 04-MAY-1999; 99US-0132484.
PR 05-MAY-1999; 99US-0132485.
PR 06-MAY-1999; 99US-0132486.
PR 06-MAY-1999; 99US-0132486.
PR 07-MAY-1999; 99US-0132863.
PR 11-MAY-1999; 99US-0134256.
PR 14-MAY-1999; 99US-0134218.
PR 14-MAY-1999; 99US-0134219.
PR 14-MAY-1999; 99US-0134221.
PR 14-MAY-1999; 99US-0134370.
PR 18-MAY-1999; 99US-0134376.
PR 19-MAY-1999; 99US-0134941.

```

PR 20-MAY-1999; 99US-0135124.  
PR 21-MAY-1999; 99US-0135353.  
PR 24-MAY-1999; 99US-0135629.  
PR 25-MAY-1999; 99US-0136021.  
PR 27-MAY-1999; 99US-0136392.  
PR 28-MAY-1999; 99US-0136782.  
PR 01-JUN-1999; 99US-0137222.  
PR 03-JUN-1999; 99US-0137528.  
PR 04-JUN-1999; 99US-0137502.  
PR 07-JUN-1999; 99US-0137724.  
PR 08-JUN-1999; 99US-0138094.  
PR 10-JUN-1999; 99US-0138540.  
PR 10-JUN-1999; 99US-0138847.  
PR 14-JUN-1999; 99US-0139119.  
PR 16-JUN-1999; 99US-0139452.  
PR 16-JUN-1999; 99US-0139453.  
PR 17-JUN-1999; 99US-0139492.  
PR 18-JUN-1999; 99US-0139454.  
PR 18-JUN-1999; 99US-0139455.  
PR 18-JUN-1999; 99US-0139456.  
PR 18-JUN-1999; 99US-0139461.  
PR 18-JUN-1999; 99US-0139463.  
PR 18-JUN-1999; 99US-0139458.  
PR 18-JUN-1999; 99US-0139459.  
PR 18-JUN-1999; 99US-0139460.  
PR 18-JUN-1999; 99US-0139461.  
PR 18-JUN-1999; 99US-0139462.  
PR 18-JUN-1999; 99US-0139463.  
PR 18-JUN-1999; 99US-0139750.  
PR 18-JUN-1999; 99US-0139763.  
PR 21-JUN-1999; 99US-0133817.  
PR 22-JUN-1999; 99US-0133899.  
PR 23-JUN-1999; 99US-0140353.  
PR 23-JUN-1999; 99US-0140354.  
PR 24-JUN-1999; 99US-0140695.  
PR 28-JUN-1999; 99US-0140823.  
PR 29-JUN-1999; 99US-0140991.  
PR 30-JUN-1999; 99US-0141287.  
PR 01-JUL-1999; 99US-0141842.  
PR 01-JUL-1999; 99US-0142154.  
PR 02-JUL-1999; 99US-0142055.  
PR 06-JUL-1999; 99US-0142390.  
PR 08-JUL-1999; 99US-0142803.  
PR 09-JUL-1999; 99US-0142920.  
PR 12-JUL-1999; 99US-0142977.  
PR 13-JUL-1999; 99US-0143542.  
PR 14-JUL-1999; 99US-0143624.  
PR 15-JUL-1999; 99US-0144005.  
PR 16-JUL-1999; 99US-0144085.  
PR 16-JUL-1999; 99US-0144086.  
PR 19-JUL-1999; 99US-0144325.  
PR 19-JUL-1999; 99US-0144331.  
PR 19-JUL-1999; 99US-0144332.  
PR 19-JUL-1999; 99US-0144334.  
PR 19-JUL-1999; 99US-0144334.  
PR 19-JUL-1999; 99US-0144335.  
PR 20-JUL-1999; 99US-0144332.  
PR 20-JUL-1999; 99US-0144632.  
PR 20-JUL-1999; 99US-0144884.  
PR 21-JUL-1999; 99US-0144814.  
PR 21-JUL-1999; 99US-0145086.  
PR 21-JUL-1999; 99US-0145088.  
PR 22-JUL-1999; 99US-0145085.  
PR 22-JUL-1999; 99US-0145087.  
PR 22-JUL-1999; 99US-0145089.  
PR 22-JUL-1999; 99US-0145192.  
PR 23-JUL-1999; 99US-0145145.  
PR 23-JUL-1999; 99US-0145218.  
PR 23-JUL-1999; 99US-0145224.  
PR 26-JUL-1999; 99US-0145276.  
PR 27-JUL-1999; 99US-0145913.  
PR 27-JUL-1999; 99US-0145918.  
PR 27-JUL-1999; 99US-0145919.  
PR 28-JUL-1999; 99US-0145951.  
PR 28-JUL-1999; 99US-0145951.

PR 02-AUG-1999; 99US-0146386.  
PR 02-AUG-1999; 99US-0146388.  
PR 02-AUG-1999; 99US-0146389.  
PR 03-AUG-1999; 99US-0147038.  
PR 04-AUG-1999; 99US-0147204.  
PR 04-AUG-1999; 99US-0147302.  
PR 05-AUG-1999; 99US-0147192.  
PR 05-AUG-1999; 99US-0147260.  
PR 06-AUG-1999; 99US-0147303.  
PR 06-AUG-1999; 99US-0147416.  
PR 09-AUG-1999; 99US-0147493.  
PR 09-AUG-1999; 99US-0147935.  
PR 10-AUG-1999; 99US-0148171.  
PR 11-AUG-1999; 99US-0148319.  
PR 12-AUG-1999; 99US-0148341.  
PR 13-AUG-1999; 99US-0148565.  
PR 13-AUG-1999; 99US-0148684.  
PR 16-AUG-1999; 99US-0149368.  
PR 17-AUG-1999; 99US-0149175.  
PR 18-AUG-1999; 99US-0149426.  
PR 20-AUG-1999; 99US-0149722.  
PR 20-AUG-1999; 99US-0149723.  
PR 20-AUG-1999; 99US-0149929.  
PR 20-AUG-1999; 99US-0149902.  
PR 23-AUG-1999; 99US-0149930.  
PR 25-AUG-1999; 99US-0150566.  
PR 26-AUG-1999; 99US-0150884.  
PR 27-AUG-1999; 99US-0151065.  
PR 27-AUG-1999; 99US-0151066.  
PR 27-AUG-1999; 99US-0151080.  
PR 27-AUG-1999; 99US-0151303.  
PR 30-AUG-1999; 99US-0151438.  
PR 31-AUG-1999; 99US-0151930.  
PR 01-SEP-1999; 99US-0152363.  
PR 07-SEP-1999; 99US-0153070.  
PR 10-SEP-1999; 99US-0153758.  
PR 13-SEP-1999; 99US-0154018.  
PR 15-SEP-1999; 99US-0154039.  
PR 16-SEP-1999; 99US-0154779.  
PR 20-SEP-1999; 99US-0155139.  
PR 22-SEP-1999; 99US-0155486.  
PR 23-SEP-1999; 99US-0155659.  
PR 24-SEP-1999; 99US-0156458.  
PR 28-SEP-1999; 99US-0156596.  
PR 29-SEP-1999; 99US-0157117.  
PR 04-OCT-1999; 99US-0157753.  
PR 05-OCT-1999; 99US-0157865.  
PR 06-OCT-1999; 99US-0158029.  
PR 07-OCT-1999; 99US-0158232.  
PR 08-OCT-1999; 99US-0158369.  
PR 12-OCT-1999; 99US-0159293.  
PR 13-OCT-1999; 99US-0159294.  
PR 13-OCT-1999; 99US-0159295.  
PR 14-OCT-1999; 99US-0159329.  
PR 14-OCT-1999; 99US-0159330.  
PR 14-OCT-1999; 99US-0159331.  
PR 14-OCT-1999; 99US-0159637.  
PR 14-OCT-1999; 99US-0159638.  
PR 18-OCT-1999; 99US-0159584.  
PR 21-OCT-1999; 99US-0160741.  
PR 21-OCT-1999; 99US-0160767.  
PR 21-OCT-1999; 99US-0160768.  
PR 21-OCT-1999; 99US-0160770.  
PR 21-OCT-1999; 99US-0160814.  
PR 21-OCT-1999; 99US-0160815.  
PR 22-OCT-1999; 99US-0160980.  
PR 22-OCT-1999; 99US-0160981.  
PR 22-OCT-1999; 99US-0160989.  
PR 25-OCT-1999; 99US-0161404.  
PR 25-OCT-1999; 99US-0161405.  
PR 25-OCT-1999; 99US-0161406.  
PR 26-OCT-1999; 99US-0161359.  
PR 26-OCT-1999; 99US-0161360.



PR 21-APR-1999; 99US-0130449.  
PR 23-APR-1999; 99US-0130510.  
PR 23-APR-1999; 99US-0130891.  
PR 28-APR-1999; 99US-0131449.  
PR 30-APR-1999; 99US-0132048.  
PR 30-APR-1999; 99US-0132407.  
PR 04-MAY-1999; 99US-0132484.  
PR 05-MAY-1999; 99US-0132485.  
PR 06-MAY-1999; 99US-0132486.  
PR 07-MAY-1999; 99US-0132487.  
PR 11-MAY-1999; 99US-0132863.  
PR 11-MAY-1999; 99US-0134256.  
PR 14-MAY-1999; 99US-0134218.  
PR 14-MAY-1999; 99US-0134219.  
PR 14-MAY-1999; 99US-0134221.  
PR 14-MAY-1999; 99US-0134370.  
PR 18-MAY-1999; 99US-0134768.  
PR 19-MAY-1999; 99US-0134941.  
PR 20-MAY-1999; 99US-0135124.  
PR 21-MAY-1999; 99US-0135153.  
PR 24-MAY-1999; 99US-0135629.  
PR 25-MAY-1999; 99US-0136021.  
PR 27-MAY-1999; 99US-0136392.  
PR 28-MAY-1999; 99US-0136782.  
PR 01-JUN-1999; 99US-0137222.  
PR 03-JUN-1999; 99US-0137528.  
PR 04-JUN-1999; 99US-0137502.  
PR 07-JUN-1999; 99US-0137724.  
PR 08-JUN-1999; 99US-0138094.  
PR 10-JUN-1999; 99US-0138540.  
PR 10-JUN-1999; 99US-0138847.  
PR 14-JUN-1999; 99US-0139119.  
PR 16-JUN-1999; 99US-0139452.  
PR 16-JUN-1999; 99US-0139453.  
PR 17-JUN-1999; 99US-0139454.  
PR 18-JUN-1999; 99US-0139454.  
PR 18-JUN-1999; 99US-0139455.  
PR 18-JUN-1999; 99US-0139456.  
PR 18-JUN-1999; 99US-0139457.  
PR 18-JUN-1999; 99US-0139458.  
PR 18-JUN-1999; 99US-0139459.  
PR 18-JUN-1999; 99US-0139460.  
PR 18-JUN-1999; 99US-0139461.  
PR 18-JUN-1999; 99US-0139462.  
PR 18-JUN-1999; 99US-0139463.  
PR 18-JUN-1999; 99US-0139463.  
PR 18-JUN-1999; 99US-0139750.  
PR 18-JUN-1999; 99US-0139750.  
PR 21-JUN-1999; 99US-0139817.  
PR 21-JUN-1999; 99US-0139817.  
PR 22-JUN-1999; 99US-0139899.  
PR 23-JUN-1999; 99US-0140353.  
PR 23-JUN-1999; 99US-0140354.  
PR 24-JUN-1999; 99US-0140695.  
PR 28-JUN-1999; 99US-0140823.  
PR 29-JUN-1999; 99US-0140991.  
PR 30-JUN-1999; 99US-0141287.  
PR 01-JUL-1999; 99US-0141842.  
PR 01-JUL-1999; 99US-0142154.  
PR 02-JUL-1999; 99US-0142055.  
PR 06-JUL-1999; 99US-0142390.  
PR 08-JUL-1999; 99US-0142803.  
PR 09-JUL-1999; 99US-0142820.  
PR 12-JUL-1999; 99US-0142977.  
PR 13-JUL-1999; 99US-0143542.  
PR 14-JUL-1999; 99US-0143624.  
PR 15-JUL-1999; 99US-0144005.  
PR 16-JUL-1999; 99US-0144085.  
PR 16-JUL-1999; 99US-0144086.  
PR 19-JUL-1999; 99US-0144325.  
PR 19-JUL-1999; 99US-0144331.  
PR 19-JUL-1999; 99US-0144332.  
PR 19-JUL-1999; 99US-0144333.  
PR 19-JUL-1999; 99US-0144334.  
PR 19-JUL-1999; 99US-0144335.

PR 20-JUL-1999; 99US-0144352.  
PR 20-JUL-1999; 99US-0144632.  
PR 20-JUL-1999; 99US-0144684.  
PR 21-JUL-1999; 99US-0144684.  
PR 21-JUL-1999; 99US-0145086.  
PR 21-JUL-1999; 99US-0145088.  
PR 22-JUL-1999; 99US-0145085.  
PR 22-JUL-1999; 99US-0145087.  
PR 22-JUL-1999; 99US-0145089.  
PR 23-JUL-1999; 99US-0145192.  
PR 23-JUL-1999; 99US-0145145.  
PR 23-JUL-1999; 99US-0145218.  
PR 23-JUL-1999; 99US-0145224.  
PR 26-JUL-1999; 99US-0145276.  
PR 27-JUL-1999; 99US-0145913.  
PR 27-JUL-1999; 99US-0145918.  
PR 27-JUL-1999; 99US-0145919.  
PR 28-JUL-1999; 99US-0145951.  
PR 02-AUG-1999; 99US-0146386.  
PR 02-AUG-1999; 99US-0146389.  
PR 02-AUG-1999; 99US-0146389.  
PR 03-AUG-1999; 99US-0147038.  
PR 04-AUG-1999; 99US-0147204.  
PR 04-AUG-1999; 99US-0147302.  
PR 05-AUG-1999; 99US-0147192.  
PR 05-AUG-1999; 99US-0147260.  
PR 06-AUG-1999; 99US-0147303.  
PR 06-AUG-1999; 99US-0147416.  
PR 09-AUG-1999; 99US-0147493.  
PR 09-AUG-1999; 99US-0147935.  
PR 10-AUG-1999; 99US-0148171.  
PR 11-AUG-1999; 99US-0148319.  
PR 12-AUG-1999; 99US-0148341.  
PR 13-AUG-1999; 99US-0148565.  
PR 13-AUG-1999; 99US-0148684.  
PR 16-AUG-1999; 99US-0149368.  
PR 17-AUG-1999; 99US-0149175.  
PR 18-AUG-1999; 99US-0149426.  
PR 20-AUG-1999; 99US-0149722.  
PR 20-AUG-1999; 99US-0149723.  
PR 20-AUG-1999; 99US-0149929.  
PR 22-AUG-1999; 99US-0149902.  
PR 23-AUG-1999; 99US-0149930.  
PR 23-AUG-1999; 99US-0150566.  
PR 25-AUG-1999; 99US-0150884.  
PR 27-AUG-1999; 99US-0151065.  
PR 27-AUG-1999; 99US-0151066.  
PR 27-AUG-1999; 99US-0151080.  
PR 30-AUG-1999; 99US-0151303.  
PR 31-AUG-1999; 99US-0151438.  
PR 01-SEP-1999; 99US-0151930.  
PR 07-SEP-1999; 99US-0152363.  
PR 10-SEP-1999; 99US-0153070.  
PR 13-SEP-1999; 99US-0153758.  
PR 15-SEP-1999; 99US-0154018.  
PR 16-SEP-1999; 99US-0154039.  
PR 20-SEP-1999; 99US-0154779.  
PR 22-SEP-1999; 99US-0155139.  
PR 23-SEP-1999; 99US-0155486.  
PR 24-SEP-1999; 99US-0155659.  
PR 28-SEP-1999; 99US-0156458.  
PR 29-SEP-1999; 99US-0156566.  
PR 04-OCT-1999; 99US-0157117.  
PR 05-OCT-1999; 99US-0157753.  
PR 06-OCT-1999; 99US-0157865.  
PR 07-OCT-1999; 99US-0158029.  
PR 08-OCT-1999; 99US-0158232.  
PR 12-OCT-1999; 99US-0158369.  
PR 13-OCT-1999; 99US-0159293.  
PR 13-OCT-1999; 99US-0159294.  
PR 14-OCT-1999; 99US-0159295.  
PR 14-OCT-1999; 99US-0159329.  
PR 14-OCT-1999; 99US-0159330.

```
PR 14-OCT-1999; 99US-0159331.
PR 14-OCT-1999; 99US-0159637.
PR 14-OCT-1999; 99US-0159638.
PR 18-OCT-1999; 99US-0159584.
PR 21-OCT-1999; 99US-0160741.
PR 21-OCT-1999; 99US-0160767.
PR 21-OCT-1999; 99US-0160768.
PR 21-OCT-1999; 99US-0160770.
PR 21-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160981.
PR 22-OCT-1999; 99US-0160989.
PR 25-OCT-1999; 99US-0161404.
PR 25-OCT-1999; 99US-0161405.
PR 25-OCT-1999; 99US-0161406.
PR 26-OCT-1999; 99US-0161359.
PR 26-OCT-1999; 99US-0161360.
PR 26-OCT-1999; 99US-0161361.
PR 28-OCT-1999; 99US-0161920.
PR 28-OCT-1999; 99US-0161921.
PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.
```

```
alignment_scores:
      Quality: 1115.00      Length: 374
      Ratio: 3.574      Gaps: 8
Percent Similarity: 83.422      Percent Identity: 62.834
```

```
alignment_block:
US-09-805-550-4 x AAC47900 ..
```

```
Align seg 1/1 to: AAC47900 from: 1 to: 1549
```

```
1 MetLysLeuThrValLysThrLeuLysGlyThrHisPheGluIleArg 17
232 ATGAACCTCACTCTTAAGACTCTCAAGGAGGACCATTTAGATTAGGT 281
17 LginProAsnAspThrIleMetAlaValLysLysAsnIleGluGluIle 34
282 TCTCTCCACCGACACGATTAATGCGGCGGTAAGAAATATTGAGATTCAC 331
34 LngLysAspSerLysProTrrpGlyGlnGlnIleuLeuIlePheAsnGly 50
332 AAGCAAAAGACACATATCTTGTGGCAGCAATTAATGATTCACAAATGA 381
51 LysValLeuLysAspLysSerThrLeuGluLysAsnLysValAsnGluAs 67
382 AAGGTTTGAAGATGAACACTACCTGCTGCGAGACAAAGTTACCGAGCA 431
67 pGlyPheLeuValAlaMetLeuSerLysGlyLysThrSerGlySerThrG 84
432 GGGTTTCTGTCGTGATGCTTAGCAAGACAAACTGCAAGTTGACGCTG 481
84 LysThrSerSerSerLysHisSerAsnThrProAlaThrArgGlnAla 99
482 GTCCCTCTTCTACTACGCTACTCTTACCAAGACATCTACATATCTTCA 531
100 ProLeuGlnAlaProGlnGlnAlaProGlnProProValAlaProIle 116
532 ACCACGCTTGCAGCTCGG..TCGACAAACCAAGTCTATGCTGCGCGG 578
116 eThrThrSerGlnPro..GluGlyLeuProAlaGlnAlaProAsnThrH 132
579 TTCAAATTTCTACTCCGCTTCACAGAACACCAACCAAGAGACACCT 628
132 LysAspAsnAlaAlaSerAsnLeuLeuSerGlyLysArgAsnValaIle 148
629 ATCGTCAAGCTGCTCAACTTATAGTAGTGGCAGTAGTATTTAGCAATG 678
149 IleAsnGlnLeuMetGlnMetGlyGlyGlySerTrrpAspLysAspLys 165
679 GTTCAACCAATATATGGAATGGAGAGGAGGAGTTGGACAAAGAACGCT 728
```

```
165 LginArgAlaLeuArgAlaAlaTyrAsnAsnProGluArgAlaValGluT 182
729 TACTCGGCACTTCGTGACAGCATATTAACAACCCGTGAGAGAGAGTGAT 778
182 YrLeuTyrSerGlyIleProValThrAlaGluIle..AlaValProIle 197
779 ATCTATATTTCTGGAATTCCTGAAACAGATTAACCATTTCCAGACTAAT 828
198 GlyGlyGlnGlyAlaAsnThrThrAspArgAlaProThrGlyGluAla 214
829 TCTGAGTGAAGATCTGGTACAGAACTTACTGCTCTCTCTCC..... 870
214 YLeuSerGlyIleProAsnThrAlaProLeuAspLeuPheProGlnGly 231
871 ...TCGAGAGGCCCTAATTCATCTCCTCGATTGTTGCCACAGAGAG 916
231 LAserAsnAlaGlyGlyAlaGlyGlyGlyProLeuAspPheLeuArg 247
917 CAGTTCTTGATGACAGCGGTGAGATCTTGGAAAGCTTGAATTCCTCAGA 966
248 AsnAsnProGlnPheGlnAlaValArgGluMetValHisThrAsnPro 264
967 GGCATATGATCAGTTCACAAATTAACGCTCCATGCTCAATTCACACCCCA 1016
264 nIleLeuGlnProMetLeuValGluLeuSerLysGlnAsnProGlnIle 281
1017 GATTCTGCACACCTATGCTTCACAGAGCTCGGAAGACAGAACCCCACTTC 1066
281 euaArgLeuIleGluGluAsnHisAspGluPheLeuGlnLeuLeuAsnGlu 297
1067 TGAAGCTAATTCAGAGAACCAAGCCGAAATTTCTTCAATTCTTAACGAG 1116
298 ProPheGlnGlyGlyGlyGly.....AspPheLeuAspGlnProGlu 312
1117 CCTTACAGATGATCTAGCGGAGTGGATATCTTCATTAACCTATCA 1166
312 uAspGluMetProHisAlaIleSerValThrProGluGlnGluAlaI 329
1167 A...GAATGCCCCACACTCACTCAACGTTACCCCTGAAGACAGAAATCAA 1213
329 LgLyArgLeuGlnSerMetGlyPheAspArgAlaArgValIleGluAla 345
1214 TTAAGCGCTTGAAGCAATAGGGTTGATAGACCAATGATCATAGAAAGCC 1263
346 PheLeuAlaCysAspArgAsnGluGluLeuAlaAlaAsnTyrLeuLeu 362
1264 TTCCTTTCCTGTCACCTTAACGAGAAATTTGCTGCAAACTATCTACTAGA 1313
362 uHisAlaGlyGlu...GluAsp 368
1314 GCACATCAGCAGATTTGCAAGAC 1335
seq_name: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2000.DAT.AAC48229
seq_documentation_block:
ID AAC48229 standard; DNA; 1424 BP.
AC AAC48229;
DT 18-OCT-2000 (first entry)
DE Arabidopsis thaliana DNA fragment SEQ ID NO: 56722.
XX
XX Hybridisation assay; genetic mapping; gene expression control;
XX protein identification; signal transduction pathway;
XX metabolic pathway; promoter; termination sequence; ss.
XX
XX Arabidopsis thaliana.
XX
XX EP1033405-A2.
XX
XX 06-SEP-2000.
PD
```

XX 25-FEB-2000; 2000EP-0301439.  
XX  
PR 25-FEB-1999; 99US-0121825.  
PR 05-MAR-1999; 99US-0123180.  
PR 09-MAR-1999; 99US-0123548.  
PR 23-MAR-1999; 99US-0125788.  
PR 25-MAR-1999; 99US-0126264.  
PR 29-MAR-1999; 99US-0126785.  
PR 01-APR-1999; 99US-0127462.  
PR 06-APR-1999; 99US-0128234.  
PR 08-APR-1999; 99US-0128714.  
PR 16-APR-1999; 99US-0129845.  
PR 19-APR-1999; 99US-0130077.  
PR 21-APR-1999; 99US-0130449.  
PR 23-APR-1999; 99US-0130510.  
PR 28-APR-1999; 99US-0130891.  
PR 30-APR-1999; 99US-0131449.  
PR 30-APR-1999; 99US-0132048.  
PR 30-APR-1999; 99US-0132407.  
PR 04-MAY-1999; 99US-0132484.  
PR 05-MAY-1999; 99US-0132485.  
PR 06-MAY-1999; 99US-0132486.  
PR 06-MAY-1999; 99US-0132487.  
PR 07-MAY-1999; 99US-0132863.  
PR 11-MAY-1999; 99US-0134256.  
PR 14-MAY-1999; 99US-0134218.  
PR 14-MAY-1999; 99US-0134219.  
PR 14-MAY-1999; 99US-0134221.  
PR 14-MAY-1999; 99US-0134370.  
PR 18-MAY-1999; 99US-0134768.  
PR 19-MAY-1999; 99US-0134941.  
PR 20-MAY-1999; 99US-0135124.  
PR 21-MAY-1999; 99US-0135353.  
PR 24-MAY-1999; 99US-0135629.  
PR 25-MAY-1999; 99US-0136021.  
PR 27-MAY-1999; 99US-0136392.  
PR 28-MAY-1999; 99US-0136782.  
PR 01-JUN-1999; 99US-0137222.  
PR 03-JUN-1999; 99US-0137528.  
PR 04-JUN-1999; 99US-0137528.  
PR 07-JUN-1999; 99US-0137724.  
PR 08-JUN-1999; 99US-0138094.  
PR 10-JUN-1999; 99US-0138540.  
PR 10-JUN-1999; 99US-0138847.  
PR 14-JUN-1999; 99US-0139119.  
PR 16-JUN-1999; 99US-0139452.  
PR 16-JUN-1999; 99US-0139453.  
PR 17-JUN-1999; 99US-0139492.  
PR 18-JUN-1999; 99US-0139454.  
PR 18-JUN-1999; 99US-0139455.  
PR 18-JUN-1999; 99US-0139456.  
PR 18-JUN-1999; 99US-0139457.  
PR 18-JUN-1999; 99US-0139458.  
PR 18-JUN-1999; 99US-0139459.  
PR 18-JUN-1999; 99US-0139460.  
PR 18-JUN-1999; 99US-0139461.  
PR 18-JUN-1999; 99US-0139462.  
PR 18-JUN-1999; 99US-0139463.  
PR 18-JUN-1999; 99US-0139750.  
PR 18-JUN-1999; 99US-0139763.  
PR 21-JUN-1999; 99US-0139817.  
PR 22-JUN-1999; 99US-0139899.  
PR 23-JUN-1999; 99US-0140353.  
PR 23-JUN-1999; 99US-0140354.  
PR 24-JUN-1999; 99US-0140695.  
PR 28-JUN-1999; 99US-0140823.  
PR 29-JUN-1999; 99US-0140991.  
PR 30-JUN-1999; 99US-0141287.  
PR 01-JUL-1999; 99US-0141842.  
PR 01-JUL-1999; 99US-0142154.  
PR 02-JUL-1999; 99US-0142055.  
PR 06-JUL-1999; 99US-0142390.  
  
PR 08-JUL-1999; 99US-0142803.  
PR 09-JUL-1999; 99US-0142920.  
PR 12-JUL-1999; 99US-0142977.  
PR 13-JUL-1999; 99US-0143542.  
PR 14-JUL-1999; 99US-0143624.  
PR 15-JUL-1999; 99US-0144005.  
PR 16-JUL-1999; 99US-0144085.  
PR 16-JUL-1999; 99US-0144086.  
PR 19-JUL-1999; 99US-0144335.  
PR 19-JUL-1999; 99US-0144331.  
PR 19-JUL-1999; 99US-0144332.  
PR 19-JUL-1999; 99US-0144333.  
PR 19-JUL-1999; 99US-0144334.  
PR 20-JUL-1999; 99US-0144335.  
PR 20-JUL-1999; 99US-0144352.  
PR 20-JUL-1999; 99US-0144632.  
PR 20-JUL-1999; 99US-0144684.  
PR 21-JUL-1999; 99US-0144814.  
PR 21-JUL-1999; 99US-0145086.  
PR 21-JUL-1999; 99US-0145088.  
PR 21-JUL-1999; 99US-0145088.  
PR 22-JUL-1999; 99US-0145085.  
PR 22-JUL-1999; 99US-0145087.  
PR 22-JUL-1999; 99US-0145089.  
PR 22-JUL-1999; 99US-0145192.  
PR 23-JUL-1999; 99US-0145145.  
PR 23-JUL-1999; 99US-0145218.  
PR 23-JUL-1999; 99US-0145224.  
PR 26-JUL-1999; 99US-0145276.  
PR 27-JUL-1999; 99US-0145913.  
PR 27-JUL-1999; 99US-0145918.  
PR 27-JUL-1999; 99US-0145919.  
PR 28-JUL-1999; 99US-0145951.  
PR 02-AUG-1999; 99US-0146386.  
PR 02-AUG-1999; 99US-0146388.  
PR 02-AUG-1999; 99US-0146389.  
PR 03-AUG-1999; 99US-0147038.  
PR 04-AUG-1999; 99US-0147204.  
PR 04-AUG-1999; 99US-0147302.  
PR 05-AUG-1999; 99US-0147192.  
PR 05-AUG-1999; 99US-0147260.  
PR 06-AUG-1999; 99US-0147303.  
PR 06-AUG-1999; 99US-0147416.  
PR 06-AUG-1999; 99US-0147493.  
PR 09-AUG-1999; 99US-0147935.  
PR 10-AUG-1999; 99US-0148171.  
PR 11-AUG-1999; 99US-0148319.  
PR 12-AUG-1999; 99US-0148341.  
PR 13-AUG-1999; 99US-0148565.  
PR 13-AUG-1999; 99US-0148684.  
PR 16-AUG-1999; 99US-0149368.  
PR 17-AUG-1999; 99US-0149175.  
PR 18-AUG-1999; 99US-0149426.  
PR 20-AUG-1999; 99US-0149722.  
PR 20-AUG-1999; 99US-0149723.  
PR 20-AUG-1999; 99US-0149929.  
PR 23-AUG-1999; 99US-0149902.  
PR 23-AUG-1999; 99US-0149930.  
PR 25-AUG-1999; 99US-0150566.  
PR 26-AUG-1999; 99US-0150884.  
PR 27-AUG-1999; 99US-0151065.  
PR 27-AUG-1999; 99US-0151066.  
PR 27-AUG-1999; 99US-0151080.  
PR 30-AUG-1999; 99US-0151303.  
PR 31-AUG-1999; 99US-0151438.  
PR 01-SEP-1999; 99US-0151930.  
PR 07-SEP-1999; 99US-0152363.  
PR 10-SEP-1999; 99US-0153070.  
PR 13-SEP-1999; 99US-0153758.  
PR 15-SEP-1999; 99US-0154018.  
PR 16-SEP-1999; 99US-0154039.  
PR 20-SEP-1999; 99US-0154779.  
PR 22-SEP-1999; 99US-0155139.  
PR 23-SEP-1999; 99US-0155486.





XX 17-OCT-2000 (first entry)  
XX Arabidopsis thaliana DNA fragment SEQ ID NO: 21980.  
DE Hybridisation assay; genetic mapping; gene expression control;  
XX Protein identification; signal transduction pathway;  
KW metabolic pathway; promoter; termination sequence; ss.  
XX Arabidopsis thaliana.  
OS  
PN EPI033405-A2.  
XX  
PD 06-SEP-2000.  
XX  
PF 25-FEB-2000; 2000EP-0301439.  
XX  
PR 25-FEB-1999; 99US-0121825.  
PR 05-MAR-1999; 99US-0123180.  
PR 09-MAR-1999; 99US-0123548.  
PR 23-MAR-1999; 99US-0125788.  
PR 25-MAR-1999; 99US-0126264.  
PR 29-MAR-1999; 99US-0126785.  
PR 01-APR-1999; 99US-0127462.  
PR 06-APR-1999; 99US-0128234.  
PR 08-APR-1999; 99US-0128714.  
PR 16-APR-1999; 99US-0129845.  
PR 19-APR-1999; 99US-0130077.  
PR 21-APR-1999; 99US-0130449.  
PR 23-APR-1999; 99US-0130510.  
PR 28-APR-1999; 99US-0130891.  
PR 30-APR-1999; 99US-0131449.  
PR 30-APR-1999; 99US-0132048.  
PR 04-MAY-1999; 99US-0132407.  
PR 05-MAY-1999; 99US-0132484.  
PR 06-MAY-1999; 99US-0132485.  
PR 06-MAY-1999; 99US-0132486.  
PR 06-MAY-1999; 99US-0132487.  
PR 07-MAY-1999; 99US-0132863.  
PR 11-MAY-1999; 99US-0134256.  
PR 14-MAY-1999; 99US-0134218.  
PR 14-MAY-1999; 99US-0134219.  
PR 14-MAY-1999; 99US-0134221.  
PR 14-MAY-1999; 99US-0134370.  
PR 18-MAY-1999; 99US-0134768.  
PR 19-MAY-1999; 99US-0134941.  
PR 20-MAY-1999; 99US-0135124.  
PR 21-MAY-1999; 99US-0135533.  
PR 24-MAY-1999; 99US-0135629.  
PR 25-MAY-1999; 99US-0136021.  
PR 27-MAY-1999; 99US-0136392.  
PR 28-MAY-1999; 99US-0136782.  
PR 01-JUN-1999; 99US-0137222.  
PR 03-JUN-1999; 99US-0137528.  
PR 04-JUN-1999; 99US-0137502.  
PR 07-JUN-1999; 99US-0137724.  
PR 08-JUN-1999; 99US-0138094.  
PR 10-JUN-1999; 99US-0138540.  
PR 10-JUN-1999; 99US-0138847.  
PR 14-JUN-1999; 99US-0139119.  
PR 16-JUN-1999; 99US-0139452.  
PR 16-JUN-1999; 99US-0139453.  
PR 17-JUN-1999; 99US-0139492.  
PR 18-JUN-1999; 99US-0139454.  
PR 18-JUN-1999; 99US-0139455.  
PR 18-JUN-1999; 99US-0139456.  
PR 18-JUN-1999; 99US-0139457.  
PR 18-JUN-1999; 99US-0139458.  
PR 18-JUN-1999; 99US-0139459.  
PR 18-JUN-1999; 99US-0139460.  
PR 18-JUN-1999; 99US-0139461.  
PR 18-JUN-1999; 99US-0139462.  
PR 18-JUN-1999; 99US-0139463.  
  
PR 18-JUN-1999; 99US-0139750.  
PR 18-JUN-1999; 99US-0139763.  
PR 21-JUN-1999; 99US-0139817.  
PR 22-JUN-1999; 99US-0139899.  
PR 23-JUN-1999; 99US-0140353.  
PR 23-JUN-1999; 99US-0140354.  
PR 24-JUN-1999; 99US-0140695.  
PR 28-JUN-1999; 99US-0140823.  
PR 30-JUN-1999; 99US-0140991.  
PR 30-JUN-1999; 99US-0141287.  
PR 01-JUL-1999; 99US-0141842.  
PR 01-JUL-1999; 99US-0142154.  
PR 02-JUL-1999; 99US-0142055.  
PR 06-JUL-1999; 99US-0142390.  
PR 08-JUL-1999; 99US-0142803.  
PR 09-JUL-1999; 99US-0142920.  
PR 12-JUL-1999; 99US-0142977.  
PR 13-JUL-1999; 99US-0143542.  
PR 14-JUL-1999; 99US-0143624.  
PR 15-JUL-1999; 99US-0144005.  
PR 16-JUL-1999; 99US-0144085.  
PR 16-JUL-1999; 99US-0144086.  
PR 19-JUL-1999; 99US-0144325.  
PR 19-JUL-1999; 99US-0144331.  
PR 19-JUL-1999; 99US-0144332.  
PR 19-JUL-1999; 99US-0144333.  
PR 19-JUL-1999; 99US-0144334.  
PR 20-JUL-1999; 99US-0144335.  
PR 20-JUL-1999; 99US-0144352.  
PR 20-JUL-1999; 99US-0144632.  
PR 20-JUL-1999; 99US-0144684.  
PR 21-JUL-1999; 99US-0144814.  
PR 21-JUL-1999; 99US-0145086.  
PR 21-JUL-1999; 99US-0145088.  
PR 22-JUL-1999; 99US-0145085.  
PR 22-JUL-1999; 99US-0145087.  
PR 22-JUL-1999; 99US-0145089.  
PR 22-JUL-1999; 99US-0145192.  
PR 23-JUL-1999; 99US-0145145.  
PR 23-JUL-1999; 99US-0145218.  
PR 23-JUL-1999; 99US-0145224.  
PR 26-JUL-1999; 99US-0145276.  
PR 27-JUL-1999; 99US-0145913.  
PR 27-JUL-1999; 99US-0145918.  
PR 27-JUL-1999; 99US-0145919.  
PR 28-JUL-1999; 99US-0145951.  
PR 02-AUG-1999; 99US-0146386.  
PR 02-AUG-1999; 99US-0146388.  
PR 02-AUG-1999; 99US-0146389.  
PR 03-AUG-1999; 99US-0147038.  
PR 04-AUG-1999; 99US-0147204.  
PR 04-AUG-1999; 99US-0147302.  
PR 05-AUG-1999; 99US-0147312.  
PR 05-AUG-1999; 99US-0147260.  
PR 06-AUG-1999; 99US-0147260.  
PR 06-AUG-1999; 99US-0147303.  
PR 06-AUG-1999; 99US-0147416.  
PR 09-AUG-1999; 99US-0147493.  
PR 09-AUG-1999; 99US-0147935.  
PR 10-AUG-1999; 99US-0148171.  
PR 11-AUG-1999; 99US-0148319.  
PR 12-AUG-1999; 99US-0148341.  
PR 13-AUG-1999; 99US-0148565.  
PR 13-AUG-1999; 99US-0148684.  
PR 16-AUG-1999; 99US-0149368.  
PR 17-AUG-1999; 99US-0149175.  
PR 18-AUG-1999; 99US-0149426.  
PR 20-AUG-1999; 99US-0149722.  
PR 20-AUG-1999; 99US-0149723.  
PR 20-AUG-1999; 99US-0149929.  
PR 23-AUG-1999; 99US-0149902.  
PR 23-AUG-1999; 99US-0149930.  
PR 25-AUG-1999; 99US-0150566.  
PR 26-AUG-1999; 99US-0150884.



```

340 AlArGValllleglualpHeleuAlaCyAspArGsnGlulLueAl 356
|||||
1120 GCAGATGCTTCGAGAGTCTCTTGCCTGAAACAGATGAGAACTTGC 1169
356 aAlAsnTYrLeuLengluHnIsAlaglyu...GluAsp 368
|||||
1170 AGCTAAATACCTTCCTAGATCATGATGATGATTGGAGAT 1209

seq_name: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2000.DAT: AAD01230
seq_documentation_block:
ID AAD01230 standard: cDNA; 1522 BP.
XX
AC AAD01230;
XX
DT 04-OCT-2000 (first entry)
XX
DE Maize Rad23 protein #1 encoding cDNA.
XX
KW Rad23; maize; ATCC No: PTA-530; recombinant expression cassette; wheat;
XX transgenic plant; soybean; sunflower; sorghum; canola; modulator; ss.
XX
OS Zea mays.
XX
FH Key Location/Qualifiers
FT CDS 58..1275
FT /tag= a
FT /product= "Maize Rad23 protein #1"
FT /note= "Contained in ATCC No: PTA-530"
XX
PN WO200031268-A1.
XX
PD 02-JUN-2000.
XX
PF 12-OCT-1999; 99WO-US24129.
XX
PR 23-NOV-1998; 98US-0109728.
XX
PA (PION-) PIONEER HI-BRED INT INC.
XX
PI Mahajan PB, Tagilant L;
XX
DR WPI: 2000-400078/34.
DR F-PSDB: AAT71458.
XX
XX
PT Isolated nucleic acid encoding maize RAD23 protein is used to modulate
PT the levels of polypeptides in plant or in assays for identifying
PT compounds that bind to and/or increase/decrease enzymatic activity of
PT catalytically active polypeptides -
XX
PS Claim 1e; Page 73-75; 82pp; English.
XX
XX
CC The present sequence is the cDNA encoding maize Rad23 protein #1. It is
CC isolated from V5 root tissue of a Zea mays cell line B73, infected with
CC corn root worm. This cDNA is deposited under the ATCC No: PTA-530. Maize
CC Rad23 DNA sequence operably linked to a promoter can be used to construct
CC a recombinant expression cassette. This expression cassette can be used
CC to generate a dicot or monocot transgenic plant e.g., maize, soybean,
CC sunflower, sorghum, canola, wheat, etc.. It can also be used to modulate
CC the levels of Rad23 polypeptide expression in a plant or in assays to
CC identify compounds, that bind to and/or modulate the enzymatic activity
CC of catalytically active polypeptides.
XX
SQ Sequence 1522 BP; 430 A; 375 C; 370 G; 347 T; 0 other;

alignment_scores:
Quality: 900.50 Length: 402
Ratio: 3.063 Gaps: 7
Percent Similarity: 73.134 Percent Identity: 49.005

alignment_block:
US-09-805-550-4 x AAD01230

```

```

Align seg 1/1 to: AAD01230 from: 1 to: 1522
1 MetLysLeuThrValLysThrLeuLysGlyThrHisPheGluIleArgVa 17
|||||
58 ATGAAAGCTTAAAGCTCAAGACCTCAAGGGACCAAGCTTGAGATGAGGC 107
17 LglProAsnAspThrIleMetAlaValLysLysAsnIleGluIleG 34
|||||
108 GAGCCCGATGATCGGTTGCTGATGTGAAGAGATCATTTAGACCACTC 157
34 InglyLysAspSerTyrProTrrpGlyGingInLeuIlePheAsnGly 50
|||||
158 AAGGTCAAGTACCTACCGGGCGAGCAAGCAATGCTCATATACCAAGG 207
51 LysValLeuLysAspGluSerThrLeuGluLysValAsnGluAs 67
|||||
208 AAATTTCTCAAGATGAAACCACTTTGAAAGCAAGGAGTTGCTGAGAA 257
67 pGlyPheLeuValValMetLeuSerTyrGlyLysThrSerGlySerThrg 84
|||||
258 CAGCTTCCTGTTATATGTTGTCGAAGCTTAAGGCATCA...TGCAGTG 304
84 LyrThrSerSerSerGlnHisSerAsnThrProAlaThrArgGlnAlaPro 100
|||||
305 GAGCTTCTACCGCTACTACTCAAAAGCTCCTGCAACTGAGCCCAACT 354
101 .....ProLeuGluAlaProGlnGlnAlaPro...GlnPr 111
|||||
355 GCTGCCCTGTGGCCCTGCTGCTGATGATGATGATGATGATGATGATG 404
111 oProValAlaProIleThrThrSerGlnProGluGlyLeuProAlaGln 128
|||||
405 TCCTGTTGCCACAGCTGAACGGAACCCCAAGTGTCCAACTCAGGCTG 454
128 lApro.....AsnThrHisAspAsn 134
|||||
455 CTCACAGCTGCTACGCTGCTGCTACTGATGATGATGATGATGATGATG 504
135 AlaAlaSerAsnLeuLeuSerGlyYArgAsnValAspThrIleIleAsnG 151
|||||
505 GCAGCTTCAACCTTGTATTTGGCACACATCTAGAACGACTATCTCAACA 554
151 nLeuMetGluMetGlyGlyGlySerTyrPaspLysAspLysValGlnArg 168
|||||
555 AATCTTACATAGGTGGTGTGTACATGGCAACGATATCTTGTCTGTG 604
168 lAlaValGlnAlaIleTyrAsnAsnProGluArgAlaValGluTyrLeuTyr 184
|||||
605 CTCTACGCTGCTGATACAAATTAACCCGAGAGAGATATGACTACTGTAT 654
185 SerGlyLeuProValThrAlaGlu.....IleAlaValProIle 197
|||||
655 TCTGGAATTCCTGAGAAATGTGAGGCTCAGCTGTGGCCGAGCAACCTGC 704
197 eGlyGlyGingInLysAlaAsnThrThrAspArgAlaProThrGlyGlnAla 213
|||||
705 TGTGTGGCCAAACAACAAATCAAGAGCCGCACTACCCCTCAAGCCAGAG 754
214 .....GlyLeuSerGlyIleProAsnThrAla 222
|||||
755 TTGCATTGCCAGTGCAGCATACCTGCTGCGCTGCAAGGCTCAATGCAAT 804
223 ProLeuAspLeuPheProGlnGlyAlaSerAsnIleGlyGly..... 236
|||||
805 CTTTGAACCTTTTCTCAGAGGTGTTCCAAAGTGGTGGTCCAAACCCAGG 854
237 .....GlyAlaGlyGlyGlyProLeuAspPheLeuArgAsnAsp 250
|||||
855 TGTGTGTCAGGTGAGAGATCGTGTGCTGATGAGCTTGGAGACAGCTTC 904
250 rGlnPheGlnAlaValArgGluMetValHisThrAsnProGlnIleLeu 266
|||||

```

```

905 CACAGTTTACAGACATCTTCACTAGTCCAGGCTAATCCTCAATCTTG 954
267 GlnPrometleuValgluLeuSerlysglnAasnProglInleuArglye 283
|||||
955 CAGCCAAATCTTCAGAGCTAGTAAACAAAACCCACAATATCTGGGGT 1004
283 ullegluGluasnHlsAspGluPheleuGlnleuLeuAasnGluProphg 300
|||||
1005 GATTCAGAAAATCAAGCTGAGTTCTCGCTGGTGAATGAATCTCTG 1054
300 lnglyGlygluAspPheleuAspGlnProglInluAspGluMetpro 316
|||||
1055 AGGGTGTCTCTGGAGGAGACATACGTAGCTCACTGGCAGCTGCTGCGCA 1104
317 HlsAlaIleSerValThrProglIngluGlnAlaIleGlyArglye 333
|||||
1105 CAACACCTGACAGTTACCCAGGAGGAGGAGGAGGAGGAGGAGGAGG 1154
333 uSerMetGlyPheAspArgAlaArgValIleGluAlaPheleuAlaCysA 350
|||||
1155 GGGAAATGGGGTTCACCGTACCTTGTCTAGAGATTTCTTGTGCAATGA 1204
350 sPArgAsnGlnGluLeuAlaAlaAsnTyrlleuGlnHlsAlaGlyGlu 366
|||||
1205 ACAAGAGCAAGAGAGCTTACAGCCAACTACTCTGTGATCATGGCCATGAG 1254
367 GluAsp 368
|||||
1255 TTTGAC 1260

seq_name: /SIS1/gcdata/geneseq/geneseqn-emb1/NA2002.DAT:AB199464
seq_documentation_block:
ID AB199464 standard; cDNA; 1251 BP.
XX
AC AB199464:
XX
DT 07-MAR-2002 (first entry)
XX
DE Mouse ischaemic condition related cDNA sequence SEQ ID NO:414.
XX
KW Mouse; ischaemia; compressive ischaemia; occlusive ischaemia;
KM vasospastic ischaemia; ischaemic condition; ischaemic disease; ss.
XX
OS Mus musculus.
XX
PN W020018188-A2.
XX
PD 22-NOV-2001.
XX
PF 18-MAY-2001; 2001WO-JP04192.
XX
PR 18-MAY-2000; 2000JP-0145977.
XX
PA (UVNI-) UNIV NIHON SCHOOL JURIDICAL PERSON.
XX
PI Ishikawa K, Asai S, Takahashi Y, Nagata T, Ishii Y;
XX
DR WPI; 2002-034733/04.
XX
P-PSDB; ABB57171.
XX
XX
XX Examining the ischemic condition (e.g. occlusive ischemia) by measuring
PT expression levels of particular genes defined in the specification or
PT by determining the expression profile of a gene group comprising these
PT genes -
XX
PS Claim 2; Page 1129-1132; 2690pp; English.
XX
XX The present invention describes a method for examining ischaemic
CC conditions, comprising measuring the expression levels of particular
CC genes (I) in a test sample or determining the expression profile of a
CC gene group in the sample comprising genes selected from (I). The method
CC is useful for examining the ischaemic condition (e.g. compressive

```

```

CC ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring
CC expression levels of particular genes (AB199202 to AB19912, encoding
CC the protein sequences in ABB57020 to ABB57314) or by determining the
CC expression profile of a gene group comprising these genes. The
CC expression levels or expression profiles produced by these genes are
CC used as an indicator when screening for ischaemic condition-improving
CC drugs or therapeutics for ischaemic diseases. AB199913 and AB199914
CC represent PCR primers for a mouse ischaemic condition related sequence,
CC which are used in the exemplification of the present invention.
XX
SQ Sequence 1251 BP; 361 A; 323 C; 305 G; 262 T; 0 other:

alignment_scores:
Quality: 634.00 Length: 436
Ratio: 2.314 Gaps: 11
Percent Similarity: 62.844 Percent Identity: 33.486

alignment_block:
US-09-805-550-4 x AB199464 ..
Align seg 1/1 to: AB199464 from: 1 to: 1251

1 MetlyLeuThrValIysThrIleuLysGlyThrHisPheGluIleArgVa 17
|||||
1 ATGCAGGTCCACCTGAGAGACCTTCAGACAGCAGACCTTCAGATCGACAT 50
17 lGlnProAsnAspThrIleMetAlaValLysLysAsnIleGluIleG 34
|||||
51 CGACCCGAGAGAGACCGTAAAGCATTGAAGAGAAAGATTGAATCGAAA 100
34 lnglyLysAspSerTyrrProTrrGlyGlnGlnleuLeuIlePheasnly 50
|||||
101 AGGGAGAAAGATGCCCTTCCGGTAGCAGTCAGAAATTAAATTATGGCCGC 150
51 lysValleuLysAspGlnSerThrIleuGlnGluAsnLysValasndLus 67
|||||
151 AAAATCTCAGTAGATGATAGTACTGCTCAAGAAATATTAATGATGAGAA 200
67 pGlyPheLeuValIleMetLeuSerlysglyLysThrSerGlySerThg 84
|||||
201 AAACCTTGTGCTGTATGTGTGACAAACCCAAAGCAGTACACAGCAG 250
84 lYThrSerSerGlnHlsSerAsnThrProAla.....ThArg 97
|||||
251 TGCCAGCTACAAACCCAGCATCAAGTCCAGCCCACTACAGCACT 300
98 GlnAlaProProleuGlnAlaProGln...GlnAlaProGlnProProva 113
|||||
301 TCTTCCCAAGCAAGTGGCTGGGCCAGGCTCCAGCTCCACCCCTGCTCT 350
113 lAlaProIleThrThr.....SerGlnProGlu.....Gly 123
|||||
351 GGCTCCCACTTCACATCTGCTGCCCTCCACTACTCCAGCTCCACACAGCCT 400
119 .....
401 CTCTGAAACCCGACCTGCTGTGTCACCTCAGCTGAGAAACCTGCAGAA 450
124 LeuProAlaGlnAlaPro.....
451 AAGCCAGCCAGACACCACTGCTTACTAGCCAGCAGCAGTGCAGTGC 500
130 .....
501 ACCAGAGATTCCTCCCGGCAATCTTTTGAAGATGCAACAAGTCC 550
139 euleuSerlyArgasnValAspThrIleIleasnGlnleuMetGluMet 155
|||||
551 TTGTGACAGTCAAGTCTTATGAGAAATATGTAAGTCAATGTCGAAG 600
156 GlyGlyGlySerTrrAspLysAspLysValGlnArgAlaLeuArgAla 172
|||||

```



```

36 ykapsertyrprotrpglyglnleuleulepheasnlylval 52
   :::::::::::::: :::: ||| ||||| ::::::::::::::
113 gtrgagcttccctccctgagacagaaactatctatgcccgaagatc 162
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
53 leulysaspgluserthrleugluiaasnlyvalasngluaspglph 69
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
163 ttgagtgacgatgtccctatcagagactatgcgatgatgagaaactt 212
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
69 eueuvalvalmetleuserlysylsthrserglyserthrlythrs 86
   :::::::::::::: :::::::::::::: ::::::::::::::
213 tggggtcgtcatgtgacc.....aagacaaagccggcagagatcct 256
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
86 eiserseerlnhisserasnthrprolathrarglnala..... 99
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
257 cagacaccccccagagccctcaccacagctgcccacagatctctacatcc 306
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
100 .....Proleuglu 104
   |||||
307 ttcccccctgccccaccctcagcagatgccatcccccaccctgcccag 356
   |||||
104 aproglnalinalproglinprovalalaproilertthrserglph 121
   :::::::::::::: :::::::::::::: ::::::::::::::
357 agagacagagagcccatcagagaaatccgcccc.....acagcgtccc 400
   |||||
121 rogluclyleuproalaglinalaproasnthr.....His 132
   ||||| :::::::::::::: :::::::::::::: ::::::::::::::
401 cagagctgtgtcagcctctgttcccttcacgtacagcagccgagag 450
   |||||
133 aspasalalaserasnleuserglyargasnvalasprhileil 149
   :::::::::::::: :::::::::::::: ::::::::::::::
451 gaagacgcccctccacgctagtagcgggctcgaatgagacgattgct 500
   |||||
149 easnleumetglumetglylysthrpasplyaspplysvalg 166
   :::::::::::::: :::::::::::::: ::::::::::::::
501 gacgagatcatgtccatgggc.....favgacgagcagcgggctgc 541
   |||||
166 lmrghalaleuaragalalatyraasnprogluaragalavalgluty 182
   |||||
542 tgcgccctgagagcccttaccacaccccccagcgggagatg 591
   |||||
183 leutyrserglytleprovalthrallgluilealavalproileglyl 199
   ||| :::::::::::::: :::::::::::::: ::::::::::::::
592 ctctctacgggaattcct..... 609
   |||
199 yglnglyalasnthrthraspargalaprothrlyglualaleuys 216
   |||||
610 ....ggagacccccgagccggaacacgcttctcagagagccaggtat 655
   |||||
216 erclyleuproasnthralproleuaspleupheproglnglyalaser 232
   |||
656 cagacagacggccgacgaa..... 675
   |||
233 asnalaglyglylvalaglyglylproleuasppheleuarqsnas 249
   :::::::::::::: :::::::::::::: ::::::::::::::
676 .....gcagcagagagaaacccctgagattcctggggagaca 713
   |||||
249 nproglinphglnalavalarglumevalhisthrasnproglinlel 266
   |||||
714 gcccagattccaaacacatgcggcagagtgattcagacaaacctgctgc 763
   |||||
266 euglnprohmetleuvalgluleuserlyslnasnproglinleuayr 282
   |||
764 tgcgccctcctcctcagacgctggccagagaaacctcgttttaacac 813
   |||||
283 leuliegluasnhisaspglupheleuglnleuleuasnlpuro... 298
   |||||
814 caaatcagccgacacagagcagcttcatccacatgctgaacagacccc 863
   |||||
299 .....phegluclyleugluaspplaspheleuaspolnp 310
   |||||
864 tggcgagctggcgagacatctcagatgagggagggagtgccgacatag 913
   |||||
310 roglucluaspglumetprohlsalalaservalthrprogluclugln 326

```

```

||||| :::: :::: |||:|||||:|||||:
914 GAGAGAGAGGCCCCGCGANGAACATACATCCAGGTGACGCGCAGGAGAA 963
   |||||
327 GLUALAIIIEGLYARLEUGLUSERMETGLYPHEASPARGLARGLYAI 343
   |||||
964 GAGGCTRTAGAGAGGTTGAAGGCCCTGGGCTTCCACAGAGAGCCTGGTCA 1013
   |||||
343 eglualaphelualacysasparqasngluileuualalasnlytl 360
   |||||
1014 CCAGCCCTATTTCCGCTGTGAATAAATGAGAACTTGCTGCCAAGTCC 1063
   |||||
360 euleugluhisalaglygluasp 368
   |||||
1064 TCCTGAGTCAGAACTTGATGACGAG 1089
   |||||
seq_name: /SIDS1/gcdata/geneseq/geneseqn-emb1/NA2000.DAT:AAF21744
seq_documentation_block:
ID  AAF21744 standard; DNA; 1786 BP.
XX
AC  AAF21744;
XX
DT  27-MAR-2001 (first entry)
XX
DE  Human breast and ovarian cancer associated antigen gene SEQ ID 131.
XX
KW  Human; breast cancer; ovarian cancer; cytostatic; immunosuppressive;
KW  neurotrophic; neuroprotective; antiviral; antiatheric; hepatotropic;
KW  antidiabetic; antinflammatory; antilucer; vulnerary; anticonvulsant;
KW  antibacterial; antifungal; antiparasitic; cardiant; immune disorder;
KW  Addison's disease; allergy; autoimmune hemolytic anaemia;
KW  autoimmune thyroiditis; diabetes mellitus; Crohn's disease;
KW  multiple sclerosis; rheumatoid arthritis; ulcerative colitis;
KW  cardiovascular disorder; wound healing; neurological disease; ds.
XX
OS  Homo sapiens.
XX
PN  WO200055173-A1.
XX
PD  21-SEP-2000.
XX
PF  08-MAR-2000; 2000MO-US05881.
XX
PR  12-MAR-1999; 99US-0124270.
XX
PA  (HUMA-) HUMAN GENOME SCI INC.
XX
PI  Rosen CA, Ruben SM;
XX
DR  WPI; 2000-611515/58.
XX
DR  P-PSDB; AAB58841.
XX
PT  New human breast and ovarian cancer associated gene sequences and the
PT  polypeptides encoded by these genes, useful in the prevention,
PT  treatment and diagnosis of cancer, immune disorders, cardiovascular
PT  disorders and neurological diseases -
XX
PS  Claim 1; Page 579; 1299pp; English.
XX
CC  Sequences AAF21614 - AAF22031 represent DNA sequences encoding human
CC  proteins AAB58711 - AAB59128. The DNA and protein sequences are
CC  associated with breast and ovarian cancer. Included in the invention are
CC  sequences AAF22032 - AAF22040 and AAB59129 which are used in the
CC  isolation and characterisation of the DNA and protein sequences of the
CC  invention. The breast and ovarian cancer associated DNA, protein, agonist
CC  or antagonist sequences exhibit cytostatic; immunosuppressive;
CC  neurotrophic; neuroprotective; antiviral; antiatheric; hepatotropic;
CC  antidiabetic; antinflammatory; antilucer; vulnerary; anticonvulsant;
CC  antibacterial; antifungal; antiparasitic and cardiant activity. The
CC  polynucleotide and protein sequences are used in the diagnosis of cancer,
CC  particularly breast and ovarian cancer. The nucleic acid sequences,
CC  proteins, agonists and agonists may also be used in the diagnosis,
CC  prevention and treatment of immune disorders e.g. Addison's disease.

```

CC allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis,  
 CC diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid  
 CC arthritis and ulcerative colitis; cardiovascular disorders such as  
 CC myocardial ischaemias; wound healing; neurological diseases such as  
 CC cerebral anoxia and epilepsy; and infectious diseases.

XX  
 SQ Sequence 1786 BP; 453 A; 541 C; 476 G; 316 T; 0 other;

# alignment\_scores:

Quality: 603.00 Length: 392  
 Ratio: 2.275 Gaps: 8  
 Percent Similarity: 67.602 Percent Identity: 33.418

# alignment\_block:

us-09-805-550-4 x AAF21744 ..

Align seg 1/1 to: AAF21744 from: 1 to: 1786

```

3 LeuThrValLysThrLeuLysGlyThrHisPheGluIleArgValGlnPr 19
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
92 ATCAGGCTCAAAACGCTGCAGCAGCAGACCTTCAAGATCCCATGAGACC 141
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
19 CAsnAspHrIleMetAlaValLysLysAsnIleGluGluIleGlnGly 36
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
142 TGACGAGACGGGTGAAGGTGTAAGAGAGAAAGATAGAACTGAGAAGGCTC 191
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
36 YsAspSerTyrProTyrPglYngInLeuIlePheAsnGlyLysVal 52
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
192 GTGATGCTTCCCGCTGGCTGCAGACAGAACTCATCTATCCGGCAAGATC 241
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
53 LeuLysAspGluSerThrLeuGluGluLysValAsnGluAspGlyPh 69
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
242 TTGAGTGACGATGTCCTATCAGGAGACTATGCATGCATGAGAAGAACTT 291
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
69 GluValValMetLeuSerLysGlyLysThrSerGlySerThrGlyThr 86
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
292 TGTGTCCTCATGTGTGACC.....AAGACCAAAAGCCGCGAGGTACT 335
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
86 eSerSerGlnHisSerAsnThrProAlaThrArgGlnAla..... 99
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
336 CAGACCCCCCAGAGGCTCACCCACAGCTGCCCCAGAGTCTCTACATCC 385
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
100 .....ProLeuGluAl 104
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
386 TTCGCGCTGCCCCACCTCAGGATGTCATCCATCCACCTGCGCGCAG 435
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
104 aProGlnGlnAlaProGlnProProValAlaProIleThrThrSerGlnP 121
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
436 AGAGGACAAAGAGCCCATCAGAGGATCCGCCCC.....ACGAGCTCC 479
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
121 roGluGlyLeuProAlaGlnAlaProAsnThr.....His 132
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
480 CAGAGTCTGTCTCAGGCTCTCTCCCTCTTCAGGTAGCAGCGCGCGCAG 529
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
133 AspaSnAlaAlaSerAsnLeuLeuSerGlyArgAsnValAspThrIleI 149
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
530 GAAGACGCGCGCTCCAGCTAGTGAGCGGCTGTGATGAGAGATGCT 579
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
149 eAsnGlnLeuMetGluMetGlyGlyGlySerTyrAspLysAspLysVal 166
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
580 GACGAGATCATGTGTCATGCGC.....TATGACGAGAGCGCGGCTG 620
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
166 LntArgAlaLeuArgAlaAlaTyrAsnAsnProGluArgAlaValGlnTyr 182
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
621 TGGCGCGCTGAGAGCCAGCTACAAACACCCCGACCGCGCTGAGATAT 670
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
183 LeuTyrSerGlyIleProValThrAlaGluIleAlaValProIleGly 199
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
671 CTGCTCAGCGGGAATCT..... 688
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
199 yGlnGlyAlaAsnThrThrAspArgAlaProThrGlyAlaGlyLeuS 216
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::

```

```

689 ....GGGAGCCCCGAGCCGGAACACGCTTGTGTCCAGAGAGCCAGGTAT 734
216 eRgLyIleProAsnThrAlaProLeuAspLeuPheProGlnGlyAlaSer 232
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
735 CGAGACAGCCGCGCACGGAA..... 754
233 AsnAlaGlyGlyAlaGlyGlyProLeuAspPheLeuArgAsnAs 249
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
755 .....GCAGAGAGAAACCCCTGGAGTCTGCGGACCA 789
249 nProGlnPheGlnAlaValArgGluMetValHisThrAsnProGlnIle 266
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
790 GCCCAGTTCCAGAACATGCGGAGTGTATCAGAGAACTTGGCGTTC 839
266 eGlnProMetLeuValGluLeuSerLysGlnAsnProGlnIleLeuArg 282
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
840 TGGCGCGCTGTCCAGCAGCTGGGCGCAGAGAACCCCTACACTTTTACAG 889
283 LeuIleGluGluAsnHisAspGluPheLeuGluLeuLeuAsnGluPro. 298
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
890 CAATATCAGCCGCGCACAGCAGCAGTTCATCCAGATGCTGAACGAGCCCC 939
299 .....PheGluGlyGlyGluGlyAspPheLeuAspGlnP 310
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
940 TGGGAGCTGGCGGACATCTCAGATCTGAGCGGAGGTGGCGCCATAG 989
310 roGluGluAspGluMetProHisAlaIleSerValThrProGluGluIn 326
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
990 GAGAGGAGCGCCCGCAGATGAATCATCTCAGAGTACGCCCGCAGAGAAA 1039
327 GluAlaIleGlyArgLeuGluSerMetGlyPheAspArgAlaArgValI 343
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
1040 GAAGCTATAGAGAGGTGAAGCCCTGGGCTTCCAGAGAGCGCTGCAT 1089
343 eGluAlaPheLeuAlaCysAspArgAsnGluGluLeuAlaAlaAsnTyrL 360
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
1090 CCAGGCTATTTTGGGTGTGAATAAATGACAATCTGCTGCCAATCTCC 1139
360 eUleGluHisAlaGlyGluAsp 368
  ::::::::::::::::::::::::::::::::::::::::::::::::::::::
1140 TCCTAGTCAGAACTTGTATGACGAG 1165
seq_name: /STD1/9c9data/geneseq/geneseqn-emb1/NA1997.DAT:AAAT77781
seq_documentation_block:
ID AAAT77781 standard; cDNA; 1041 BP.
XX
AC AAAT77781;
XX
DT 01-OCT-1997 (first entry)
XX
DE Nuclear mitotic apparatus interacting protein, NIP-2.
XX
KW NIP-1; NIP-2; NuMA; nuclear mitotic apparatus; NuMA interacting protein;
KW cell division; proliferation; antibody; Ab; detection;
KW malignant cell growth; ss.
XX
OS Homo sapiens.
XX
PN W09640917-A1.
XX
PD 19-DEC-1996.
XX
PF 07-JUN-1996; 96WO-US09504.
XX
PR 07-JUN-1995; 95US-0478408.
XX
PA (UYVA ) UNIV YALE.
XX
PI McPherson SMG, Snyder MP.
XX
WP1; 1997-077270/07.
XX
P-PSDB; AAW21730.
DR

```

XX New nucleic acid encoding nuclear mitotic appts. interacting  
 PT proteins - useful for modulating cell division and proliferation and  
 PT in diagnosis

PS Claim 2: Page 64-65; 78pp; English.

CC The sequences given in AAT77780-81 encode NIP-1 and NIP-2 (NIP - Numa  
 CC (nuclear mitotic apparatus) interacting protein). Compounds which  
 CC interfere with the interaction of Numa with a known NIP are used to  
 CC modulate cell division and/or proliferation. Ab. raised conventionally  
 CC using NIP-1 or -2 as immunogen, are used to detect NIP (or their  
 CC complexes) and to block their activity for diagnostic or therapeutic  
 CC use, e.g. to detect defective Numa or NIP which may be markers for  
 CC aberrant (including malignant) cell growth (which can also be detected  
 CC by nucleic acid sequencing). Also where malignancy is related to defects  
 CC in Numa or NIP, it can be treated by admin. of the appropriate  
 CC functional protein.

50 Sequence 1041 BP; 245 A; 311 C; 314 G; 171 T; 0 other;

#### alignment\_scores:

Quality: 574.50 Length: 379  
 Ratio: 2.244 Gaps: 8  
 Percent Similarity: 67.546 Percent Identity: 32.982

#### alignment\_block:

US-09-805-550-4 x AAT77781 ..

Align seq 1/1 to: AAT77781 from: 1 to: 1041

16 AAVAGLIPROASNPHTIEMETALVALYLSASNIIEGLI 32  
 1 CGCATGGAGCTGACGACGAGCTGAAGGTCTAAGAGAGATAGAC 50  
 32 UIEGLIYVSPSEPTPRTPRPGIYGLINGLNULEULIEHEA 49  
 51 TCGAAGGGGTGATGCTCTCCCGTGGCTGACAGCAAACTCATCTATG 100  
 49 SNGLYVVALYVSPJUSERTHREUGLNULEULYVALASN 65  
 101 CCGGCAAGACTGTGATGACGATGCTCATCAAGGACTGTCATCGAT 150  
 66 GLASPGIYHEULVALMETLEUSERTLYSGIYLSERTISGLYSE 82  
 151 GACAGAACTTGTGTGTCATGATGACGAGGACCAAGCAAGCGCG 194  
 82 RTHTGLYTHRSERSEGLIHISERASNTHTPROALATHTARGLNA 99  
 195 CCAAGGTACTCTGACACCCAGAGGCTTCACCCAGCTGCCCCAGAGT 244  
 99 LA.....Pro 100  
 245 CTTACATCTCCCGCTCCCGCTCCCGCTCCCGCTCCCGCTCCCGCT 294  
 101 PROLEUGLUALPROGLINGLUALPROGLINPROVALAALPROLETH 117  
 295 CTTGCCGCCAGAGAGACAGACCCATCATGAGAAATCCGCCGCC 339  
 117 THTSERGLINPROGLIYLEUPROALAGLUALPROASNTHT..... 131  
 340 .ACGAGCTCCCGAGAGTCTGTGACGCTCTGTCCCTTCAGGTAGCA 388  
 132 .....HISAPASNALALASERASNTHTSERGLIYAGASVAL 145  
 389 GCGGGAGAGAGAGAGCGGCTCCACGCTAGTACAGGCTGTGATAT 438  
 146 ASPHTHTLEASNLINLEUWETGLUMETGLIYGLYLSERTIRPASY 162  
 439 GAGACGATCTGACGAGATCATGATGAGGCG.....TATGAGCG 479  
 162 SASPLYVALINARGALALEUARGALALATRYRANASNPGLUALARGA 179

480 AGAGCGGCTGTGCGCCCTGAGAGCCAGCTACACAAACCCACAGAG 529  
 179 LAVALGUTYRLEUTYRSEGLIYLEPROVALHTHRAAGLUALVAL 195  
 530 CCGTGAGATCTGCTCAGCGGAACTCT..... 558  
 196 PROIEGLIYGLINGLUALASNTHTHTASPARGLAHTHRTGLI 212  
 559 .....GGGACCCCGAGCCGGAACAGGTTCTTCCAGCA 593  
 212 UIALAGLYLEUSERTIYLEPROASNTHTAALPROLEUASPLEUPH 229  
 594 GAGCCAGATCTCGAGCAGCGGCCAGGAA..... 624  
 229 INGLYALASERASNALAGLYGLYVALAGLYGLYGLYPROLEUASPH 245  
 625 .....GCAGCAGAGAGAACCCCTGAGATTC 651  
 246 LEUARGASNPANPROGLINPHEGLNALAVALARGLUMETVALHSTRAS 262  
 652 CTGCGGAGACCGCCGAGTTCCAGAACATCGCGAGGTATTCAGCAGAA 701  
 262 NPROGLINLEULEUINPROMETLEUVALGULEUSERTLYSGIASNPROG 279  
 702 CCTGCGCTGTCTCCCGCTGCTCCAGCAGCTGGGCGAGAACCTCT 751  
 279 INLEUARGLEUIEGLIYVALASNPHTHTASPARGLAHTHRTGLI 295  
 752 AGCTTTACAGCAATTCAGCGCCAGCAGAGCACTTCAATCAGATCTG 801  
 296 ASNGLUPRO.....PHEGLIYGLIYGLIYASPH 306  
 802 AACGAGCCCTCGGAGCTGGCGAGCATCTCAGATGATGGGGAGG 851  
 306 ELEUASNPINPROGLIYVALSPJUSERTHROHISALIESERTVALTHP 323  
 852 GGGCGCATAGAGAGAGAGCCCGCAGATGAATCATCATCAGTACAGC 901  
 323 ROGIYGLINGLUALALIEGLIYARGLEUJUSERTGLYPHEASPAR 339  
 902 CCGAGAGAGAAAGACTATAGAGAGTTGAAGCCCTGGGCTTCCAGAG 951  
 340 ALARGVALIEGLIUALAPHELEUALACYASPARGASNGIYLEUAL 356  
 952 AGCCTGTCATCCAGGCTATTTCCGCTGGAATAAATGAGAACTTGGC 1001  
 356 AALASNTYRLEULEUGLHISALAGLYGLIYUASP 368  
 1002 TGCCAACTTCTCTGATGACGAGTGAATCTTTGATGACGAG 1038  
 seq\_name: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2000.DAT:AA44960  
 seq\_documentation\_block:  
 ID AAC44960 standard; DNA; 850 BP.  
 XX AAC44960;  
 AC  
 XX  
 XX  
 DT 18-OCT-2000 (first entry)  
 XX  
 DE Arabidopsis thaliana DNA fragment SEQ ID NO: 44778.  
 XX  
 XX  
 KW Hybridisation assay; genetic mapping; gene expression control;  
 KW protein identification; signal transduction pathway;  
 KW metabolic pathway; promoter; termination sequence; ss.  
 OS Arabidopsis thaliana.  
 XX  
 XX  
 PN EP1033405-A2.  
 PM  
 XX  
 PD 06-SEP-2000.  
 XX  
 XX 25-FEB-2000; 2000EP-0301439.







PS Claim 1; SEQ ID NO 5087; 21bp + Sequence Listing; English.  
 XX  
 CC The invention relates to an isolated nucleic acid detection reagent  
 CC capable of detecting 1000 or more genes from *Drosophila*. The invention is  
 CC useful in developmental biology and in elucidating cell signalling and  
 CC cell-cell interactions in higher eukaryotes for the development of  
 CC insecticides, therapeutics and pharmaceutical drugs. The invention  
 CC discloses genomic DNA sequences (AB16176-AB130511), expressed DNA  
 CC sequences (AB57737-AB872072).  
 CC (AB57737-AB872072).  
 CC The sequence data for this patent did not form part of the printed  
 CC specification, but was obtained in electronic format directly from WIPO  
 CC at ftp.wipo.int/pub/published\_pcr\_sequences.  
 XX  
 SQ Sequence 1477 BP; 462 A; 313 C; 298 G; 404 T; 0 other;  
 alignment\_scores:  
 Quality: 487.50 Length: 445  
 Ratio: 1.935 Gaps: 11  
 Percent Similarity: 56.629 Percent Identity: 28.764  
 alignment\_block:  
 US-09-805-550-4 x ABL03535 ..  
 Align seq 1/1 to: ABL03535 from: 1 to: 1477  
 1 MetLysLeuThrValLysThrLeuLysGlyThrHisPheGluLeuArgVa 17  
 118 ATGATTATTACAAATTAATAATCTTCAACACCAAACTTTTACTATTAGCTT 167  
 17 LglProAsnAspThrIleMetAlaValLysLysAsnIleGluIleG 34  
 168 TGCCCGCGAAAAAAGCGTTTGGAACTGAAAGAAATAATTCGAGAGAGC 217  
 34 lngLysAspSerSerProTyrProTyrGlyGlnGlnLeuIlePheAsnGly 50  
 218 GCGGTCGACAG...TACGTGCGCGAAACAAACAAATGATCTACGTGGC 264  
 51 LysValLeuLysAspGluSerThrLeuGlnGlnLysValAsnGluAs 67  
 265 GTGATATTGACGATGACGACGCGTGTTCATACAAACGTTGATGAAAA 314  
 67 pGlyPheLeuValLysMetLeuSerLysGlyLysThrSerGlySerThr 84  
 315 AAAGTCATTGTGGTATGTGACACGCGATTCGTAGTCAATGCTA 364  
 84 LysHisSerSerSerGlnHisSerAsn.....ThrProAlaThr 96  
 365 ATCAACTTACGTAAAGAAAGTAATAATTGACTAGACCGACGATTC 414  
 97 ArgGlnAlaProProLeuGlnAlaProGlnGlnAlaProGlnPro.... 111  
 415 AAGCAATCTATGCTTGCAGAAAGCAACCAATTCATTCGCTAGTTC 464  
 112 .....ProValAlaProIleThrT 118  
 465 CACAAATACAGAAAGATTCAGTTTATCAGCTGAAACCAACGACCTTATCTA 514  
 118 hrSerGlnProGlnGlyLeuProAlaGlnAlaProAsnThrHisAspAsn 134  
 515 GTGACGAATTGATGCGGAGTGGCCAGGCT...TCCTTACAAATCGGCG 561  
 135 AlaAlaSerAsnLeuLeuSerGlyArgAsnValAspThrIleLeuAsnG 151  
 562 GCTGAATCTATATTGCTTATGGGTGAGCAATACCAACCAACGACGCTATC 611  
 151 nLeuMetGluMetGlyGlySerTyrPaspLysAspLysValGlnArg 168  
 612 AATGTTGGAATGGGT.....TACCCAAAGAGAGAGGTTGAAACGTCG 652  
 168 lalauArgAlaAlaTyrAsnAsnProGlnArgAlaValGlnTyrLeuLys 184

653 CGATGCTGCTAGTTATATACACCCGGAAGAGCCGTTGAATATCTCAT 702  
 185 SerGlyIleProVal..... 189  
 703 AATGCAATACCTGCAGAGAAAGTACTTTTACAAATAGGCTGATGATC 752  
 190 .ThrAlaGluIleAlaValProIleGlyGlnGlyAlaAsnThrThra 206  
 753 AACCAATCTAGTCTATTCCTCCGACCGCAACCTGCGGCAACCT 802  
 206 spArgAlaProThrGlnGlyLeuSerGlyIleProAsnThrAla 222  
 803 CTGCGGACCGTTCAACAGAA..... 822  
 223 ProLeuAspLeuPheProGlnGlyAlaSerAsnAlaGlyGlyAlaG 239  
 823 .....TCAA 827  
 239 yGlyGlyProLeuAspPheLeuArgAsnAsnProGlnPheGlnAlaVal 256  
 828 TTCAGACCCCTTGAATTTTACGTAGCCACGACAGTTCCTCAATGC 877  
 256 rglLysMetValHisThrAsnProGlnIleLeuGlnProMetLeuValGlu 272  
 878 GATCTTTATTTATCAAAACCTTCATCTTTGATGCGATATTCAGCAG 927  
 273 LeuSerLysGlnAsnProGlnIleLeuArgLeuIleGlnGlnLysHis 289  
 928 ..... 977  
 289 pGluPheLeuGlnLeuLeuAsnGluProPhe.....GluGlyG 302  
 978 TGCCTTCTCAATATGCTTATCAACGATGACCGGCAATGCGAGTCAG 1027  
 302 LY..... 302  
 1028 GCGGACCGCTTCCTCCGTTGCAATGCGCGGATTCCTCAACTTTGAC 1077  
 302 ..... 302  
 1078 AATGTTGACCTCTTCTCCAGATTTAGAAAGTACTACTCAGCAAAAG 1127  
 303 .....GluGlyAspPheLeuAspG 309  
 1128 ATCAACCGCGGGTACAAAGTGCAGACATCAAAAGGCGTACGCGGATA 1177  
 309 LProGlnGlnAspGluMetProHisAlaIleSer.....ValThr 322  
 1178 AC...GAGACTTGGACACACCTTTAGGATATCAACCATTCGTTAAT 1224  
 323 ProGlnGlnGlnGlnAlaIleGlyArgLeuGlnLysMetGlyPheAsp 339  
 1225 CGCCAAAGATAGGACGCAATAGAACGCTTAAGGCTGTGATCCGCA 1274  
 339 gAlaArgValIleGlnAlaPheLeuAlaCysAspArgAsnGlnGluLeu 356  
 1275 GGCCTTGTACTGCAAGGCTACTTCGCTTGAAAGAACGAGAAACAAG 1324  
 356 lalaAsnTyrLeuLeuGlnHisAlaGlnGlu 367  
 1325 CAGCTAATTTTGTATCGTCTAGCTCGATGAT 1359  
 seq\_name: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2001B.DAT: AAS78241  
 seq\_documentation\_block:  
 ID AAS78241 standard; cDNA; 944 BP.  
 XX AAS78241:  
 AC  
 XX  
 DT 13-FEB-2002 (first entry)  
 XX  
 DE DNA encoding novel human diagnostic protein #14045.

KW Human; chromosome mapping; gene mapping; gene therapy; forensic;  
KM food supplement; medical imaging; diagnostic; genetic disorder; ss.  
XX  
OS Homo sapiens.  
PN WO200175067-A2.  
PD 11-OCT-2001.  
XX  
PE 30-MAR-2001; 2001WO-US08631.  
PR 31-MAR-2000; 2000US-0540217.  
PR 23-AUG-2000; 2000US-0649167.  
XX  
PA (HXS-) HYSBO INC.  
XX  
PI Drmanac RT, Liu C, Tang YT;  
XX  
DR WPI: 2001-639362/73.  
P-PSDB; ABG14034.  
XX  
PT New isolated polynucleotide and encoded polypeptides, useful in  
PT diagnostics, forensics, gene mapping, identification of mutations  
PT responsible for genetic disorders or other traits and to assess  
PT biodiversity -  
XX  
XX Claim 1; SEQ ID NO 14045; 103pp; English.  
XX  
XX The invention relates to isolated polynucleotide (I) and  
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,  
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome  
CC and gene mapping, and in recombinant production of (II). The  
CC polynucleotides are also used in diagnostics as expressed sequence tags  
CC for identifying expressed genes. (I) is useful in gene therapy technique  
CC to restore normal activity of (II) or to treat disease states involving  
CC (II). (II) is useful for generating antibodies against it, detecting or  
CC quantitating a polypeptide in tissue, as molecular weight markers and as  
CC a food supplement. (II) and its binding partners are useful in medical  
CC imaging of sites expressing (II). (I) and (II) are useful for treating  
CC disorders involving aberrant protein expression or biological activity.  
CC The polypeptide and polynucleotide sequences have applications in  
CC diagnostics, forensics, gene mapping, identification of mutations  
CC responsible for genetic disorders or other traits to assess biodiversity  
CC and to produce other types of data and products dependent on DNA and  
CC amino acid sequences. AAS64197-AAS94564 represent novel human  
CC diagnostic coding sequences of the invention.  
CC Note: The sequence data for this patent did not appear in the printed  
CC specification, but was obtained in electronic format directly from WIPO  
CC at ftp.wipo.int/pub/published\_pct\_sequences.  
XX  
SQ Sequence 944 BP; 204 A; 303 C; 279 G; 158 T; 0 other;

Alignment\_scores:  
Quality: 385.00 Length: 317  
Ratio: 1.869 Gaps: 14  
Percent Similarity: 64.984 Percent Identity: 32.808

Alignment\_block:  
US-09-805-550-4 x AAS78241 ..

Align seg 1/1 to: AAS78241 from: 1 to: 944

3 LeuTnValLySThr.LeuLysGLYThrHisPheGluIleArgValGlnP 19  
:::|||||::||| |||::: |||:::|||||:::|||||  
100 ATCAGCGGTAAACCGCTGCAGCACAGCACTTCATGAAGTGGCATGGAGC 149  
  
19 rGSAsApRThrlIeMeLaIaValLysLysAsnIleGluGluIleGlnGly 35  
|||:::||||::: :::::|||:::|||||::: |||  
150 CTGACGAGACGCTGAAGGTGCTAAAGGAGAATGAAAGCTGACAGAGGCT 199  
  
36 LysAspSerTYrProTrpGlyGlnGlnLeuLeuIlePheAsnGlyLys 52  
:::|||||:::|||||::: ||| ||| ||| ||| ||| ||| ||| ||| |||

[illegible]

```

DE 26-MAR-2002 (first entry)
XX Drosophila melanogaster genomic polynucleotide SEQ ID NO 1819.
XX
XX Drosophila: developmental biology; cell signalling; insecticide;
XX pharmaceutical; gene; ds.
XX
XX Drosophila melanogaster.
XX
XX WO200171042-A2.
XX
XX 27-SEP-2001.
XX
XX 23-MAR-2001; 2001WO-US09231.
XX
XX 23-MAR-2000; 2000US-191637P.
XX
XX 11-JUL-2000; 2000US-0614150.
XX
XX (PEKE ) PE CORP NY.
XX
XX Venter JC, Adams M, Li PWD, Myers EW;
XX
XX WPI; 2001-656860/75.
XX
XX New isolated nucleic acid detection reagent for detecting 1000 or more
XX genes from Drosophila and for elucidating cell signalling and cell-cell
XX interactions -
XX
XX Claim 1: SEQ ID NO 1819; 21pp + Sequence Listing: English.
XX
XX The invention relates to an isolated nucleic acid detection reagent
XX capable of detecting 1000 or more genes from Drosophila. The invention is
XX useful in developmental biology and in elucidating cell signalling and
XX cell-cell interactions in higher eukaryotes for the development of
XX insecticides, therapeutics and pharmaceutical drugs. The invention
XX discloses genomic DNA sequences (AB101840-AB16175) and the encoded proteins
XX (AB57737-AB572072).
XX
XX The sequence data for this patent did not form part of the printed
XX specification, but was obtained in electronic format directly from WIPO
XX at ftp.wipo.int/pub/published_sequences.
XX
XX Sequence 6037 BP; 1525 A; 1355 C; 1388 G; 1769 T; 0 other;

alignment_scores:
Quality: 375.00 Length: 376
Ratio: 1.752 Gaps: 14
Percent Similarity: 56.915 Percent Identity: 26.596

alignment_block:
US-09-805-550-4 x ABL16782 ..
Align seg 1/1 to: ABL16782 from: 1 to: 6037

1 MetLysLeuThrValLysThrLeuLysGlyThrHisPheGluIleArgVa 17
|||||
3540 ATGAGCTGTCTATACGATGCTGACCAACGACCACTACTTGGAGAT 3589
17 LGLnProAsnAspThrIleMetAlaValLysLys.....AsnIleG 31
|||||
3590 GAACGAATCCGAGAGTGAAGCTCTGAAAGCAAAATGGCAATTTTAC 3639
31 LngLlIleGlnGlyLysAspSerTyrProTPrGlyGlnGlnLeuLeuIle 47
|||||
3640 CCGAAGTC.....GCCATGCCCGGAGAACCTTCAGCTGATA 3677
48 PheAsnGlyLysValLeuLysAspGlnSerThrLeuGlnGluAsnLysVa 64
|||||
3678 TACAGTGGCCCATATATGAGAGTCCATGCCCTCAGTGAATATACGAT 3727
64 LAsnGluAspGlyPheLeuValIleMetLeuSerLysGlyLysThrSerG 81
|||||

```

```

3728 AGCCGAGACACAG...ATCATTGTCTTGATGGGTAGAGAAAGTTGATA 3774
81 LysSerThrGlyThrSerSerSerGlnHisSerAsnThrProAlaThrArg 97
|||||
3775 AGAGC.....
98 GlnAlaProProLeuGlnAlaProGlnGln.....AlaProGlnProPr 112
|||||
3780 .....TCGCCAGAGAGAGAGTGGCCCGCACACACAC 3811
112 oValAla.....ProIleThrThrSerGlnProGlnGlyLeuProAlaG 127
|||||
3812 GTTGGCCGCTGGCCCAAAATGTTTGGCAGACAGAGATGGTGGCTTCAC 3861
127 LnaAlaProAsnThrHisAspAsnAlaAlaSerAsnLeuLeuSerGlyArg 143
|||||
3862 TAGCTCCCAAT.....
144 AsnValAspThrIleIleAsnGlnLeuMetGlnMetGlyGlySerTr 160
|||||
3873 .....GATCAGTGGGTGAGCATCTCATGTCAATGGGATATGGC.... 3911
160 pasPrLysAspLysValGlnArgAlaLeuArgAlaAlaTyrAsnAsnProG 177
|||||
3912 ...GAGAGGAGGTACGCTCAGCCCTCCGGGAGCTTTAATCAATCCGG 3957
177 LnaArgAlaValGlnTyrLeuTyrSerGlyIleProValThrAlaGluIle 193
|||||
3958 AAAGGCTATAGATATTGATTATGGGATTCCT..... 3992
194 AlaValProIleGlyGlnGlyAlaAsnThrThrAspArgAlaProTh 210
|||||
3993 .....CAGAGAGTTGT 4003
210 rGlyGlnAlaGlyLeuSerSerGlyIleProAsnThrAlaProLeuAspLeuP 227
|||||
4004 TTCAGAGCAGGAGATTAGCTGATCCGAGCGTACAGACAACTGATCAAT 4053
227 heProGlnGlyAlaSerAsnAlaGlyGlyAlaGlyGlyProLeu 243
|||||
4054 TCCACCA..... 4061
244 AspPheLeuAlaGlnAsnAsnProGlnPheGlnAlaValAlaArgGlnMetValHi 260
|||||
4062 .....TTAATGGCAGATCTTAACTTACACGAGTCCGTAAGATGATTA 4105
260 sThrAsnProGlnIleLeuGlnProMetLeuValGlnLeuSerLysGlnA 277
|||||
4106 TCAGAAATCCAGAACTTAATACACAGAACTAATGAACAGACTGGCTGAACCG 4155
277 snProGlnIleLeuAlaArgLeuIleGlnGluAsnHisAspGlnPheLeuGln 293
|||||
4156 ATCCGGCTACCTTCGAAAGCTTTCAGCGGTACACAGAGAGATTAATGAAC 4205
294 LeuLeuAsnGlnLupProPheGlnGlyGlyGlnGlyAspPheLeuAspGlnPr 310
|||||
4206 ATGATTTCA.....GGCGGCGCA.....AGTCG 4228
310 oGluGlnAspGlnMetProHis...AlaIleSerValThrProGlnGln 326
|||||
4229 CACCCCGAAGCAGATTAACATTTACAGATTACTTTAAACGCCGCAAGAAA 4278
326 LngLlAlaIleGlyArgLeuGlnSerMetGlyPheAspArgAlaArgVal 342
|||||
4279 CCGCGCGCTAGAGGCTTTGGAGGACACTGGGTTTGAACGTGTGATGGCC 4328
343 lIleGluAlaPheLeuAlaCysAspArgAsnGlnGlnLeuAlaAlaAsnTy 359
|||||
4329 GTTCAGCGCTATCTGGCTGCGACAAAGCAGCAGCTGGCCGACAGAGGT 4378
359 rLeuLeuGlnHisAlaGlyGlnGluAsp 368
|||||
4379 ACTAATACGCCAGTCA...GAAGAGGAT 4403

```

```

seq_name: /SIDSL/gcgdata/geneseq/geneseg-n-emb1/NA2001B.DAT:ABL03534
seq_documentation_block:
ID   ABL03534 standard; cDNA; 4198 BP.
XX
AC   ABL03534;
XX
DT   26-MAR-2002 (first entry)
XX
DE   Drosophila melanogaster expressed polynucleotide seq ID NO 5084.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
    pharmaceutical; gene; ss.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC, Adams M, Li PWD, Myers EW;
DR   WPI; 2001-656860/75.
DR   P-PSDB; ABB59431.
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PR   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Claim 1; SEQ ID NO 5084; 21bp + Sequence Listing; English.
CC
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABLI6176-ABU30511), expressed DNA
CC   sequences (ABR01840-ABLI6175) and the encoded proteins
CC   (ABB57737-ABB2072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 4198 BP; 1397 A; 710 C; 719 G; 1372 T; 0 other;
      alignment_scores:
            Quality: 346.50          Length: 661
              Ratio: 1.274           Gaps: 19
Percent Similarity: 41.150        Percent Identity: 20.575
alignment_block:
US-09-805-550-4 x ABL03534/rev ..
Align seg 1/1 to reverse of: ABL03534 from: 1 to: 4198
      1 MellyleuthrValIystrHeuLysGLYrThHishegluLeaGva 17
      || :|||:|||:|||:|||:||| ||| |||:::
      3081 ATCATATTTCACAACTTAAAATCTTCAACAGCAAACCTTTACTATTGGATT 3032
      17 lgnPrOasnAspThr..... 22
      |||:::||||
      3031 TGCCCCGGAAAAAACGGGTATGTGTACAATAATGCATAATCTAGTATATTC 2962
      22 ..... 22

```

[illegible]



---